LETTERS

A successful renal transplantation in Behçet's syndrome

Renal involvement is not frequent in Behçet's syndrome (BS) and consists of occasional reports of patients having glomerulonephritis,[1] IgA nephropathy[2] and renal amyloidosis.[3] We present the successful outcome of a renal transplantation in a patient who had end stage renal failure secondary to glomerulonephritis. To our knowledge, this is the first patient with BS to receive an organ transplantation.

The detailed history of this patient at the time of the diagnosis of glomerulonephritis was the subject of a case report in 1991.[4] In brief, she was 21 years old when she developed recurrent oral and genital ulcers, bilateral uveitis, erythema nodosum, folliculitis, and intermittent arthritis of the knees. Two years later, she was referred to our centre for further evaluation of eye symptoms. She had no active mucocutaneous lesions at that time, the pathergy reaction was positive and she carried HLA B5. It was decided to prescribe only local drops for her mild eye involvement. Three months later she experienced two ocular episodes resulting in a sharp decline of visual acuity and azathioprine 2.5 mg/kg/day was prescribed. Two weeks later she was admitted to the hospital because of microscopic haematuria. She was ANA negative, the anti-DNA and serum complement levels were within normal range. Her glomerular filtration rate was 67 ml/min. An open renal biopsy showed diffuse proliferative glomerulonephritis and weak focal segmental positivity of IgA and IgM. She was treated with three boluses of 1 g methylprednisone and was discharged prescribed azathioprine 150 mg/day, aspirin 300 mg/day and prednisone 30 mg/day. She was well except for occasional mucocutaneous symptoms and a mild transient neurological episode during the next four years. However her renal function deteriorated progressively despite uninterrupted treatment with azathioprine and changing doses of prednisone and she was put on regular haemodialysis twice a week. In the 14th month of haemodialysis, she received a kidney from her mother. The graft function started immediately and she was prescribed maintenance immunosuppression with azathioprine, cyclosporin A and methylprednisolone. An acute interstitial type rejection on the 11th day of transplantation was treated successfully with pulsed corticosteroids. Now 40 months after transplantation, she has normal renal function and is free of any symptoms of BS except for occasional oral ulcers.

We had some hesitation in performing a renal transplantation in our patient initially because of the lack of any previous experience and particularly because of our concern for the heightened inflammatory response of BS patients to simple penetrating trauma that is best characterised by the pathergy reaction.[5] This reaction, however, is not only limited to the skin and development of aneurysms after vascular punctures and episodes of synovitis after arthrocentesis have been observed.[6 7] Furthermore, postoperative complications leading to a poor outcome such as occlusions of grafts/anastomoses after the surgical treatment of aneurysms[8] or perivalvular leakage and suture breakdown after aortic valve replacement[9] have been reported in BS patients. As these complications are probably related to the pathergy phenomenon reaction, you would also reasonably expect problems after an organ transplantation, an operation with arterial and venous anastomoses. On the other hand, we had previously shown that despite the increased inflammation, wound healing after full thickness skin punch biopsies is not changed in BS.[10]

We have not experienced any of the feared complications after the transplantation procedure in this instance. One reason for this favourable outcome might be that our patient was female. It is known that BS runs a milder disease course in women compared with men.[11] Additionally, the rather intensive immunosuppressive/anti-inflammatory post-transplant drug use might also have contributed to the diminished disease activity of our patient as well as to the prevention of a reaction at the site of transplantation. Whatever it might be related to, the outcome in our patient suggests that BS patients can undergo renal transplantation with a satisfactory outcome.

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1 Benekli M, Haznedaroglu IC, Erdem Y. Glomerular involvement in Behçet's disease. Nephrol Dial Transplant 1998;13:1351–4.
2 Hemmen T, Perez-Canto A, Distler A, Offermann G, Braun J. IgA nephropathy in a patient with Behçet's syndrome. Case report and review of the literature. Br J Rheumatol 1997;36:696–9.
3 Yurdakul S, Tuzuner N, Yurdakul I, Hamuryudan V, Yazici H. Amyloidosis in Behçet's syndrome. Arthritis Rheum 1990;33:1586–9.
4 Hamuryudan V, Yurdakul S, Kural AR, Ince U, Yazici H. Diffuse proliferative glomerulonephritis in Behçet's syndrome. Br J Rheumatol 1991;30:63–4.
5 Tuzun Y, Altac M, Yazici H, Basoz A, Yurdakul S, Pazarli H, *et al*. Nonspecific skin hyperreactivity in Behçet's disease. Haematologica 1980; 65:395–8.
6 Kingston M, Ratcliffe JR, Alltree M, Merendino KA. Aneurysm after arterial puncture in Behçet's disease. BMJ 1979;1:1766–7.
7 Giacomello A, Taccari E, Zoppini A. Marked synovial sensitivity to pricking in Behçet's syndrome. Arthritis Rheum 1980;23:259–60.
8 Tuzun H, Besirli K, Sayin A, Vural FS, Hamuryudan V, Hizli N, *et al*. Management of aneurysms in Behçet's syndrome: an analysis of 24 patients. Surgery 1997;121:150–6.
9 Tanimoto K, Ishizuka N, Ram SB, Okada M, Nakamura K, Kasanuki H, *et al*. Treatment of cardiovascular Behçet's disease: a problem with valve replacement. J Cardiol 1998;31 (suppl 1):75–84.
10 Mat CM, Nazarbaghi M, Tuzun Y, Hamuryudan V, Hizli N, Yurdakul S, *et al*. Wound healing in Behçet's syndrome. Int J Dermatol 1998;37:120–3.
11 Yazici H, Tuzun Y, Pazarli H, Yurdakul S, Ozyazgan Y, Ozdogan H, *et al*. Influence of age of onset and patient's sex on the prevalence and severity of manifestations of Behçet's syndrome. Ann Rheum Dis 1984;43:783–9.

Lymphocyte phenotypes in systemic sclerosis

Although the pathophysiology of systemic sclerosis (SSc) is not fully clarified, there are considerable data implicating abnormalities of microvascular changes, fibroblast activation and immune system abnormalities. Immune system activation may play a part as a stimulus in both fibrotic and vascular damage.[1] To investigate the immune system abnormalities in the pathogenesis of SSc we evaluated lymphocyte phenotypes in patients with SSc and healthy controls by flow cytometry (Epics Profile II) for total T (CD3), T helper (CD4), T supressor (CD8), B lymphocyte cell surface marker (CD19), activation marker (CD25) and natural killer (NK) cell surface marker NKH-1 (CD56).

We studied 29 patients (27 women, two men) 16 limited, 12 diffuse and one overlap who fulfilled preliminary criteria for classification of SSc.[2] Anti-nuclear antibody was positive in 25 (86.2%) and anti-Scl70 antibodies was positive in seven (24.1 %) patients. The age range of the patients was 20–63 years (mean (SEM) 40 (5)) and the mean (SEM) disease duration was 5.6 (5.5) years. Patients were receiving no medication nor had received any immunsupressive agent for at least three months. Controls were 12 age and sex matched healthy volunteers with an age range from 27–51 years.

Data were compared for significance for Student's unpaired *t* test.

Table 1 summarises lymphocyte phenotypes in patients with SSc and healthy controls.

We found a higher expression of T cell activation marker CD25+ and NK cell main surface marker CD56+. In lymphocyte phenotypes there was not any difference among disease subsets and CD25+ and CD56+ were not correlated with the disease duration.

Immune system abnormalities have been suspected in the development of SSc because of the presence of autoantibodies, changed cytokine production and evidence of overlap with other autoimmune diseases. It was suggested that immune system changes play the major part in the development of vasculopathy and fibrosis.[3] Previous reports on T lymphocyte subpopulations in SSc are partially conflicting. Melendro *et al*[4] demonstrated that there was no significant difference in the levels of CD4+ and CD8+ among 22 SSc patients and control group but in rheumatoid arthritis (RA) CD3+ and CD8+, in Sjögren's syndrome CD3+, CD4+ and CD8+ levels were significantly decreased compared with those of controls and they suggested that the abnormalities in immune regulatory T cell circuits leading to autoimmunity are different in each connective tissue disease.

Table 1 Lymphocyte phenotypes in patients with SSc and healthy controls

Serum	*Systemic sclerosis (n=29)*	*Control group (n=12)*	*t Test**	*p Value*
CD3 (%)	71 (9)	69 (9)	0.660	>0.05
CD4 (%)	44 (9)	45 (9)	0.110	>0.05
CD8 (%)	31 (9)	25 (6)	1.914	>0.05
CD4/CD8	1.56 (0.6)	1.84 (0.6)	1.339	>0.05
CD19 (%)	12 (4)	13 (5)	0.445	>0.05
CD25 (%)	18 (9)	7.1 (3)	4.150	<0.05
CD56 (%)	22 (9)	14 (5)	2.691	<0.05

*Unpaired Student's *t* test. Data shown as mean (SD).